

REMARKS

The invention, as claimed in independent claims 1 and 15, is directed to making a shaving razor handle by molding a solid inner core of a first plastic in opposed first mold cavities, molding an outer portion of a second plastic around the inner core in opposed second mold cavities, and molding at least one elastomeric grip portion on the outer portion at opposed third mold cavities. Claim 1 recites that the inner core does not have any external surface portions. Claim 15 recites that the first and second plastics are made of the same composition and have the same appearance.

In the invention, as described in independent claims 1 and 15, a thick plastic portion of a shaving razor handle can be efficiently molded in two steps by reducing the amount and thickness of plastic that is injected and cured at one time. By injecting the plastic in two steps, the formation of the part is much quicker than it would be if the entire amount of plastic were injected in a single step. Quick curing can desirably provide for maintenance of a textured surface finish that might otherwise melt to a smooth surface with dissipation of heat from a thick molded part.

The prior rejection of claim 1, which was based upon Wright when combined with Marcus and other references, has been withdrawn and replaced with a rejection on a new reference, Iuchi, in combination with other references that had already been of record.

Claim 1 thus now stands rejected under 35 USC 103(a) on the basis of Boucherie in view of Iuchi, Miller and Meessmann.

Boucherie is cited for disclosure of molding toothbrush handles from two plastics in two mold steps.

Iuchi is cited for disclosure of using preformed resinous inserts during molding of steering wheels.

Miller is cited for disclosure of a shaving razor handle with rubber grips.

Meessmann is cited for disclosure of a toothbrush handle with elastomeric grips.

In the rejection, it is asserted that it would have been obvious from Miller to modify Boucherie to make a razor instead of a toothbrush, and that it would then have been obvious

from Iuchi to use a preformed internal insert in the Boucherie/Miller combination process, and that it would then have been obvious to modify the resulting Boucherie/Miller/Iuchi combination process to make the Iuchi preformed insert in the first molding step of Boucherie, and that it then would have then been obvious from Meessmann to thereafter add a third molding step to the modified Boucheri/Miller/Iuchi combination process in which elastomeric grips are molded over the first two plastics.

In the office action it is argued:

It would have been obvious to one having ordinary skill in the art at the time of invention to modify the process of Boucherie to include the placement of an internal insert (inner core) that is made of lower cost material into the center of the handle in order to reduce the material cost of the production of a tooth brush or shaving razor handle. It would have been further obvious to one having ordinary skill in the art to produce that core in an additional molding step in the process of Boucherie as the process of Boucherie is set up for sequential molding steps in order to retain the advantages of the basic teaching of Boucherie.

First applicants note that they do not agree with the statement in the office action that Iuchi is analogous art because "these consumer articles [toothbrushes, razors, and steering wheels] are hand gripped and are made of resinous materials." First, a steering wheel is not the same type of consumer article as a shaving razor or toothbrush; the steering wheel is much larger and more complex, including various metal pieces that are inserted into the mold as well as the resinous inserts. Because it is directed to a very different type of product and different construction, one skilled in the art would not be expected to pay much attention to Iuchi.

Second, applicants note that there is no teaching in any of the references of a three-step molding process: Iuchi describes a single step (with preformed inserts), Boucherie teaches a two-step process, without specifying the nature of the materials (as being the same or different or elastomeric or not), and Meessmann describes injection molding elastomeric gripping elements 16 on polypropylene handle member 12 which presumably has been molded, describing, at most, a two-step process. There accordingly is no teaching anywhere of a three-step molding process, and no teaching, in particular, of a three-step process in which the third step involves elastomeric material.

Finally, this combination of four references amounts to classic hindsight reconstruction with picking and choosing some parts of the references to the exclusion of other parts. E.g., Miller teaches using a metal handle and internal rubber parts. The metal handle has apertures, and the internal rubber parts have projections that stick out of the apertures to provide gripping portions. One skilled in the art might have decided from reading Miller to get rid of molding altogether, or, if one were to use molding, one would decide from Miller that the elastomeric portion should be molded in the first or second step, so that it was an internal member with some portions sticking through apertures in an outer layer laid down during a later molding step to provide the type of structure described in Miller. Also, Iuchi teaches the use of preformed inserts that are placed in a mold; if one skilled in the art were to glean anything from Iuchi, it would be that you should use various preformed inserts, not an inner core that is molded in a first molding step at opposed first mold cavities. Bouherie and Meesemann describe two-mold step procedures, such that one skilled in the art reading these references would decide that a two-step procedure should be followed. The Examiner's rejection uses claim 1 and the applicants' specification as a roadmap in the rejection to arrive at the claimed subject matter by selectively choosing some features of the references to the exclusion of others, and further modifying the resulting combination to have features nowhere described in any reference.

The subject matter of independent claim 1 accordingly is not suggested by the combination of cited references, and claim 1 is allowable under 35 USC 103(a).

The prior rejection of claim 15, which was based upon Wright when combined with Marcus and other references, has been withdrawn and replaced with a rejection on a new combination of references, namely, Boucherie in view of Marcus, Miller and Meessmann.

Boucherie is cited for disclosure of molding toothbrush handles from two plastics in two mold steps.

Marcus is cited for disclosure of molding an article in a series of layers to speed up production of the article.

Miller is cited for disclosure of a shaving razor handle with rubber grips.

Meessmann is cited for disclosure of a toothbrush handle with elastomeric grips.

First applicants note that they do not believe that the teachings of Marcus can be applied to the molding of toothbrush or razor handles as in Boucherie or the Boucherie/Miller combined process. Marcus is directed to a fundamentally different type of procedure, namely parisons used in making bottles or other hollow objects (col. 1, lines 37), e.g., by blow molding (col. 2, lines 37-44), and addresses the particular problem of maintaining shape of such hollow, thin-walled parisons after retrieval of the core (col. 1, lines 8-12). Marcus is not directed to creating articles with solid inner cores as required by the claims, but is instead directed to problems with molding hollow thin-walled articles, and it would not have been obvious to apply his teachings to making a handle with a solid inner core.

Second, applicants note that there is no teaching in any of the references of a three-step molding process of solid article: Marcus is directed to hollow articles, as just noted, Boucherie teaches a two-step process, without specifying the nature of the materials (as being the same or different or elastomeric or not), and Meessmann describes injection molding elastomeric gripping elements 16 on polypropylene handle member 12, which presumably has been molded, describing, at most, a two-step process. There accordingly is no teaching anywhere of a three-step molding process of a solid article, and no teaching, in particular, of a three-step process in which the third step involves elastomeric material.

Finally, this combination of four references amounts to classic hindsight reconstruction with picking and choosing some parts of the references to the exclusion of other parts. E.g., Miller teaches using a metal handle and internal rubber parts. The metal handle has apertures, and the internal rubber parts have projections that stick out of the apertures to provide gripping portions. One skilled in the art might have decided from reading Miller to get rid of molding altogether, or, if one were to use molding, one would decide from Miller that the elastomeric portion should be molded in the first or second step, so that it was an internal member with some portions sticking through apertures in an outer layer laid down during a later molding step to provide the type of structure described in Miller. Also, Marcus teaches molding hollow articles; if one skilled in the art were to glean anything from Marcus, it would be that you should mold a hollow toothbrush or razor handle, not a solid inner core that is molded in a first molding step at

Applicant : John P. Holden et al.
Serial No. : 09/696,989
Filed : October 26, 2000
Page : 9 of 9

Attorney's Docket No.: 00216-519001 / Case 8075

opposed first mold cavities. Boucherie and Meesemann describe two-mold step procedures, such that one skilled in the art reading these references would decide that a two-step procedure should be followed. The Examiner's rejection uses claim 15 and the applicants' specification as a roadmap in the rejection to arrive at the claimed subject matter by selectively choosing some features of the references to the exclusion of others, and further modifying the resulting combination to have features nowhere described in any reference.

The subject matter of independent claim 15 accordingly is not suggested by the combination of cited references, and claim 15 is allowable under 35 USC 103(a).

The remaining claims depend on claim 1 or claim 15 and are allowable with them.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date:

Sept 25, 2003

William E. Booth

William E. Booth

Reg. No. 28,933

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906